A repair strategy for corrosion damaged concrete

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Abstract: A repair strategy for corrosion damaged reinforced concrete has been presented. The strategy, however, includes several unresolved repair parameters which have been fully identified. Research at King Fahd University of Petroleum & Minerals is currently being carried out to resolve some of these parameters. Data developed on only one parameter is presented to show that some of these parameters may have a significant effect on the long term integrity and success of a repair. Thermal incompatibility between resinous repair material and parent concrete reduces the slant shear bond strength by 36. 5% after only 90 thermal cycles simulating the temperature fluctuations of a typical summer day. Cement-based material shows significantly smaller reduction (8%) with thermal cycling but shows weak bond with parent concrete even at static room temperature. (A)